

What is claimed is:

1. A method comprising:
 - representing a network as a logical tree having a plurality of nodes, each one of the nodes corresponding to a component in the network and each non-root node having a parent node;
 - identifying two nodes in the logical tree, a first node corresponding to a first host in the network and a second node corresponding to a second host in the network;
 - detecting if one of the two nodes exists at a lower level of the logical tree;
 - tracing a first path from the first node at the lower level to the parent node at a higher level until the parent node is at a same level of the logical tree as the second node; and
 - continuing to trace the first path up the logical tree from the parent node and tracing a second path up the logical tree from the second node until the first path and the second path meet at a same node.
2. The method of claim 1, further comprising performing an operation on data corresponding to each one of the nodes in both paths traced up the logical tree.
3. The method of claim 2, wherein the operation performed comprises managing bandwidth for a link in the network.
4. A computer readable medium having computer executable instructions for performing a method comprising:
 - representing a network as a logical tree having a plurality of nodes, each one of the nodes corresponding to a component in the network and each non-root node having a parent node;
 - identifying two nodes in the logical tree, a first node corresponding to a first host in the network and a second node corresponding to a second host in the network;

detecting if one of the two nodes exists at a lower level of the logical tree;
tracing a first path from the first node at the lower level to a parent node at a higher level until the parent node is at a same level of the logical tree as the second node; and
continuing to trace the first path up the logical tree from the parent node and tracing a second path up the logical tree from the second node until the first path and the second path meet at a same node.

5. The computer readable medium of claim 4, further comprising computer-executable instructions for performing an operation on data corresponding to each one of the nodes in both paths traced up the logical tree.
6. The computer readable medium of claim 5, wherein the operation performed comprises managing bandwidth for a link in the network.
7. A computerized system comprising:
 - a logical tree having a plurality of nodes, each one of the nodes corresponding to a component in a network and each non-root node having a parent node; and
 - a program module for tracing a path between two nodes on the logical tree wherein the path traced on the logical tree corresponds to one or more links in the network forming a route between the two hosts.
8. The computerized system of claim 7, wherein the program module manages bandwidth for the one or more links in the network forming the route between the two hosts.
9. The system of claim 8, wherein the network comprises a local area network.

10. The system of claim 9, wherein the local area network comprises a switched network.
11. The system of claim 8, wherein the network comprises a wide area network.
12. A server computer comprising:
 - a memory;
 - a processor; and
 - computer executable instructions executed by the processor from the memory for representing a network as a logical tree having a plurality of nodes; each one of the nodes corresponding to a component in a network and each non-root node having a parent node and for tracing a path between two nodes on the logical tree wherein the path traced on the logical tree corresponds to one or more links in the network forming a route between two components.
13. The server computer of claim 12, further comprising computer executable instructions for managing bandwidth for the links in the network forming the route between two components.
14. A method of managing bandwidth on a network, the method comprising:
 - receiving a request for bandwidth from a client computer on the network;
 - identifying network links affected by the request for bandwidth; and
 - allocating an amount of bandwidth for each link on the network.
15. A system comprising:
 - a network bandwidth manager, the network bandwidth manager representing the network as a logical tree and tracing a route between two nodes in the logical tree and allocating bandwidth for each link in the route; and

a host computer interconnected with the network bandwidth manager and capable of communicating over the network, the host computer requesting bandwidth from the network bandwidth manager.